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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,636	06/27/2003	Lakdas Nanayakkara	1070.22	9870

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MELVIN K. SILVERMAN & ASSOC., P.C.
Suite 500
500 West Cypress Creek Road
Fort Lauderdale, FL 33309

EXAMINER	
LEE, JONG SUK	

ART UNIT	PAPER NUMBER
3673	

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/609,636	NANAYAKKARA, LAKDAS	
	Examiner	Art Unit	
	Jong-Suk (James) Lee	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

Claim 1, line 17: "said grid" should be -- said geo-grid --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 3: The limitation "said male members" in line 2 lacks clear antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent Application (JP 11-190026) in view of Nahayakkra (US 6,105,330).

Japanese Patent Application'026 discloses a retaining wall system comprising a y-axis footing having an x-axis width, the footing/lowest course embedded within the earth along a y-z plane at a base of an earth mass (2) to be retained by the system, the footing having a flat xy upper surface thereof; upon the upper surface of the footing, a retaining wall comprising a multiplicity of courses of constructional blocks (1), each block thereof defining a solid rectangular exterior configuration (Fig. 2), an x-axis thereof defining a width axis of the wall, a y-axis thereof defining a segment of a length which one xz end surface of each block comprises opposing xz end surfaces, a part of a planar xy geo-grid (3) positioned within at least one xy plane between the retaining wall and the earthen mass to be retained, a y-axis course of blocks of the retaining wall, in which elements of the geo-grid near to the y-axis edge defining x and y axes separations proportioned for complemental interposition between successive z-axis recesses (6a, 10a) and interlocking blocks of opposing z-axis course, securing the y-axis edge of the geo-grid being secured between adjacent z-axis course of blocks of the retaining wall (Fig. 1b, 9), mortar (16) placed between opposing xy surfaces of the blocks (Fig. 9b) to provide a rigid and load resistant interlock of each geo-grid between vertically contiguous courses of the block when joined together, a z-axis length of male members (1b) of the lower xy surface of each block exceeding a z-axis depth of the xy-surfaces recesses of t vertically contiguous course to thereby

provide space for insertion of the mortar between opposing xy surfaces of blocks of the courses of the retaining wall as depicted in Fig. 9a-9b (see Figs. 1-9; English translated abstract).

However, Japanese Patent Application'026 fails to disclose or fairly suggest the opposing xz surface of the block having trapezoidal-shaped positive and negative y-axis deep key geometries being complementally interlockable and a having a depth and length in y-direction providing space for insertion of mortar between the opposing xz surfaces.

Nahayakkara'330 discloses a block for a retaining wall with Cartesian coordinating system comprising of opposing xz surfaces each having a trapezoidal-shaped positive y-axis deep geometry (20) and a negative y-axis deep geometry (18) which are interlocking between adjacent block (see Figs. 1-12; col.4, lines 8-67; col.1-67).

Therefore, in view of Nahayakkara, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the block of Japanese Patent Application'026 with having y-axis deep geometries in order to enhance the reinforcement of the retaining wall in a horizontal direction too.

With respect to a y-axis length of the positive y-axis deep key geometry exceeding a y-axis depth of the negative deep key geometry for providing space for the insertion of mortar between opposing xz brick surfaces within a given course of the retaining wall, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide such a buffer space in order to place conventional boding agent/mortar for the reinforcement between the blocks.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references cited disclose segmental retaining wall system, a retaining wall structure for soil stabilization with a geo-grid and modular block system.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (703) 308-6777. The examiner can normally be reached on 6:30 am to 3:00 pm, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford, can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Lee /jjl
May 6, 2004

Jong-Suk (James) Lee
Primary Examiner
Art Unit 3673